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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,654	03/22/2005	Masahito Tada	070795-0013	7124
20277	7590	03/31/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP			WU, IVES J	
600 13TH STREET, N.W.			ART UNIT	
WASHINGTON, DC 20005-3096			PAPER NUMBER	

1713

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/528,654

Applicant(s)

TADA ET AL.

Examiner

Ives Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

(1). Applicant's Remarks and Amendments filed on January 26, 2005 has been received and acknowledged.

Claims 11-13 are amended. Claim 14 is newly added.

The rejection of claim 11 in the prior Office Action dated October 26, 2005 is modified in response to the applicant's Amendments filed on January 26, 2006.

The new ground rejection of claims 11-13 is introduced together with claim 14 in the following paragraphs.

### *Claim Rejections - 35 USC § 103*

(2). The text of those Section of Title 35 U. S. Code not included in this Office Action can be found in the prior Office Action dated October 26, 2005

(3). **Claims 11, 12 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman, Jr. et al (US005547761A) in view of Becker et al (US004454047) and Hiraga et al (US006268469B1), further evidenced by Carey (US003256251).

The rejection of Chapman, Jr. et al, Becker et al set forth in paragraph (2) of prior Office Action dated October 26, 2005 is incorporated herein by reference.

As to the process for preparing polyvinylidene fluoride copolymer in the **independent claim 11**, in view of substantially identical process disclosed by applicant and by the combined teaching of Chapman, Jr. et al and Becker et al (US004454047), it is reasonable to presume that the process of Chapman, Jr. et al and Becker et al would apply to the preparation of the polyvinylidene fluoride as presently claimed, further evidenced by Hiraga et al in citing: Known methods for fluorine-containing polymer coagulation are as follows. (1). A method for coagulation by stirring an emulsified dispersion mechanically to apply shearing force to the dispersion and break an emulsified state. (2). A method for coagulation by adding a coagulant and then stirring to break an emulsified state. Both (1) and (2) methods are methods for breaking an emulsified state to coagulate fluorine-containing polymer particles. (Col. 1, line 23-39). Examples of the fluorine-containing copolymer are, for instance, TFE/Vdf copolymer (Col. 2, line 56-60)- **claim 12**.

As to the ratio of scattered-light intensity measured to be 10 or lower in the **independent claim 11**, in view of substantially identical fluoropolymer disclosed by combined teaching of Chapman, Jr. et al and Hiraga et al, and by applicant, and substantially identical process disclosed by combined teaching of Chapman, Jr. et al and Hiraga et al, Becker et al, and by applicant, it is the examiner's position to believe that the polyvinylidene fluoride copolymer produced by the process disclosed by combined teaching of Chapman, Jr. et al, Hiraga et al and Becker et al would inherently possess the 10 or lower scattered-light intensity ratio. Since USPTO does not have proper means to conduct the experiments, the burden now is shifted to the applicant to prove otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977):

As to the operations of stirring, settling and separation are repeated in the **independent claim 11**, although Chapman, Jr. et al, Becker et al, Hiraga et al **do not teach** the repetition of the stirring, settling and separation, however, it would have been obvious to include the repeating sequence operations for the purpose of recovering the copolymer floating in the liquid phase because the resin agglomerations by adding coagulant, agitation, depending upon their densities will either settle to the bottom of the vessel or ascend to the liquid surface which is evidenced by Carey (US003256251), Col. 1, line 48-50.

As to the repeating steps not less than 3 times in **dependent claim 14**, in the absence of showing the criticality of the records, the optimization values of repeating operations not less than 3 times in a known process renders *prima facie obviousness* within one ordinary skill in the art. *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

(4). **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman, Jr. et al (US005547761A) in view of Becker et al (US4454047) and Hiraga et al (US006268469B1), and further in view of Tsutsumi et al (EP 05-08802A1) for the same rationale recited in the prior Office Action dated October 26, 2005.

#### ***Response to Arguments***

(5). Applicants' arguments filed on January 26, 2006 have been fully considered but they are not persuasive.

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Applicants argue that the process as claimed is for the separation of low molecular weight particles and high molecular weight particles, however, it is known in the art that molecular weight of the resin is distributed and densities of the particles varies, therefore, the separation method taught by Chapman, Becker would inherently possess the separation of low molecular weight resin particles in the mixture.

Applicants' argue that neither Chapman et al nor Becker et al recognize the thin film made from copolymer particles floating in the upper part improving the properties. Applicants' claim 1 directs to a process of preparing polyvinylidene fluoride copolymer which does not address the improvement of properties by using low molecular weight resin particle.

Lastly, applicants argue that Tsutsumi et al does not disclose the repeating process of stirring, settling and separation as well as copolymer particles floating in the upper part of the mixture. The test for obviousness is not whether the features of a 2<sup>nd</sup> reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those ordinary skills in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Ives Wu  
Art Unit: 1713  
Date: March 28, 2005

  
DAVID W. WU  
ASSISTANT PATENT EXAMINER  
TECHNOLOGY CENTER 1700